What is claimed is:

1. A root canal plugging apparatus for dental work, wherein the apparatus plugs a root canal by filling the root canal with a filler material, the apparatus comprising:

a) a pen tip for compacting the filler material in the root canal;

b) a pen for holding the pen tip;

wherein the pen tip is electrically connected to the pen, wherein the pen tip has a hollow body, a heating element, and a temperature sensor, wherein the body has a first end and a second end, wherein the first end is attached to the pen, wherein the second end is inserted into the root canal, wherein the heating element is positioned inside the body in a way that heat is generated at a predetermined distance from the second end, and the temperature sensor is positioned inside the body, wherein the temperature sensor measures the temperature at the second end.

2. The apparatus of claim 1, wherein the predetermined distance is in a range from about two (2) mm to three (3) mm.

3. The apparatus of claim 1, wherein the pen tip further includes a first conductive wire, a second conductive wire, and an insulation layer, wherein the first conductive wire is electrically connected with the heating element and extends toward the first end, wherein the second conductive wire electrically connects the heating element and the second end, and wherein the insulation layer insulates the first conductive wire from the body.

4. The apparatus of claim 3, wherein the body is made of stainless steel, wherein the conductive wire is made of silver, wherein the heating element is made of chromel, and wherein the insulation layer is made of polyimide.

5. The apparatus of claim 1, wherein the pen tip is tapered toward the second end.

6. The apparatus of claim 1, wherein the heating element forms a K-type temperature sensor.

7. The apparatus of claim 1, further comprising a needle for injecting the filler material into the root canal, and a gun for holding the needle.

8. The apparatus of claim 7, wherein the needle has a cap and a needle portion fixed to the cap, wherein the cap is detachably attached to the gun.

9. The apparatus of claim 8, wherein the cap has a knurled portion for preventing slipping.

10. The apparatus of claim 8, wherein the needle portion has a shape of taper.

11. The apparatus of claim 10, wherein the size of the taper is in a range from about 2/100 to about 6/100.

12. The apparatus of claim 8, wherein the predetermined distance is in a range from about two (2) mm to three (3) mm.

13. The apparatus of claim 8, wherein the pen tip further includes a first conductive wire, a second conductive wire, and an insulation layer, wherein the first conductive wire is electrically connected with the heating element and extends toward the first end, wherein the second conductive wire electrically connects the heating element and the

second end, and wherein the insulation layer insulates the first conductive wire from the body.

14. The apparatus of claim 13, wherein the body is made of stainless steel, wherein the conductive wire is made of silver, wherein the heating element is made of chromel, and wherein the insulation layer is made of polyimide.

15. The apparatus of claim 8, wherein the pen tip is tapered toward the second end.

16. The apparatus of claim 8, wherein the heating element forms a K-type temperature sensor.